PATENT COOPERATION TREATY
PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416	
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International application No.	International filing date (day/month/year)		Priority date (day/month/year)
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International Patent Classification (IPC) or national classification and IPC

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G06Q 50/00 (2006.01)

Applicant

PATIENTRACK PTY LTD et al

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of **3** sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. [X] *(sent to the applicant and to the International Bureau)* a total of **19** sheets, as follows:

       [X] sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

       [ ] sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. [ ] *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))   , containing a sequence listing and/or table related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

   [X] Box No. I   Basis of the report

   [ ] Box No. II   Priority

   [ ] Box No. III   Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

   [ ] Box No. IV   Lack of unity of invention

   [X] Box No. V   Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

   [ ] Box No. VI   Certain documents cited

   [ ] Box No. VII   Certain defects in the international application

   [ ] Box No. VIII   Certain observations on the international application

Date of submission of the demand	Date of completion of this report
29 August 2005	13 January 2006

Name and mailing address of the IPEA/AU	Authorized Officer
AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	**ROSEMARY LONGSTAFF** Telephone No. (02) 6283 2637

x No. I	Basis of the report

With regard to the language, this report is based on:

[X] The international application in the language in which it was filed

[ ] A translation of the international application into
translation furnished for the purposes of:

, which is the language of a

    [ ] international search (under Rules 12.3(a) and 23.1 (b))

    [ ] publication of the international application (under Rule 12.4(a))

    [ ] international preliminary examination (Rules 55.2(a) and/or 55.3(a))

With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

[ ] the international application as originally filed/furnished

[X] the description:

    pages **1, 7-11, 13-26, 30-32** as originally filed/furnished

    pages* **2-5, 12, 27-29** received by this Authority on **29 August 2005** with the letter of same date

    pages* **6** received by this Authority on **3 January 2006** with the letter of same date

[X] the claims:

    pages   as originally filed/furnished

    pages*   as amended (together with any statement) under Article 19

    pages* **33-41** received by this Authority on **29 August 2005** with the letter of same date

    pages* **42** received by this Authority on **3 January 2006** with the letter of same date

[X] the drawings:

    pages **1-10** as originally filed/furnished

    pages* received by this Authority on with the letter of

    pages* received by this Authority on with the letter of

[ ] a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. [ ] The amendments have resulted in the cancellation of:

    [ ] the description, pages

    [ ] the claims, Nos.

    [ ] the drawings, sheets/figs

    [ ] the sequence listing *(specify)*:

    [ ] any table(s) related to the sequence listing *(specify)*:

4. [ ] This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

    [ ] the description, pages

    [ ] the claims, Nos.

    [ ] the drawings, sheets/figs

    [ ] the sequence listing *(specify)*:

    [ ] any table(s) related to the sequence listing *(specify)*:

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

x No. V   **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

Statement

Novelty (N)	Claims	**1-68**		**YES**
	Claims			**NO**
Inventive step (IS)	Claims	**1-68**		**YES**
	Claims			**NO**
Industrial applicability (IA)	Claims	**1-68**		**YES**
	Claims			**NO**

Citations and explanations (Rule 70.7)

All claims are novel and involve an inventive step over the cited art. None of the cited documents, alone or in obvious combination, disclose, or fairly suggest, all features of claims 1-68.

In particular, these documents do not disclose or suggest a means of directing a health care provider to attend the patient in response to a non-receipt of a confirmation that a previously directed health care provider has attended the patient, as defined in the two independent claims, claims 1 and 34.

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(d)   failure to attend;

(e)   delay; and

(f)   misapplication of, or failure to apply, a rule, or use of a bad or inadequate rule.

5   It is desired to provide a system and process for facilitating the provision of health care to one or more patients, and a patient care process and system that alleviate one or more of the difficulties of the prior art, or at least provide a useful alternative.

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SUMMARY OF THE INVENTION

In accordance with the present invention, there is provided a process executed by a computer system for facilitating the provision of health care to a patient, including the steps of:

5   receiving patient data relating to the health of a patient;

                processing said patient data to determine a risk status providing an indication of risk to the patient's health;

                selecting a health care provider to attend said patient on the basis of said risk status; and

10   transmitting directions to respective health care providers to attend the patient, wherein a direction is transmitted to a health care provider in response to non-receipt of a confirmation that a previously directed health care provider has attended the patient within a corresponding time period.

15 Thus, while the patient remains unattended by one or more health care providers previously directed to attend the patient within one or more corresponding periods of time, a further health care provider is contacted to attend the patient.

Preferably, a direction is transmitted to a health care provider in response to non-receipt of 20 an acceptance of a previously transmitted direction from a previously directed health care provider within a corresponding time period determined by the patient's risk status.

Preferably, a direction is transmitted to a health care provider in response to receipt of a rejection of a previously transmitted direction from a previously directed health care 25 provider within a corresponding time period.

Thus if a health care provider to whom a direction to attend the patient has been sent does not respond to the direction within a corresponding time period, or rejects the direction, a further health care provider is directed to attend the patient.

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Preferably, the process includes including redetermining the risk status for the patient in response to non-receipt of a confirmation that a previously directed health care provider
5 has attended the patient within a corresponding time period, the redetermined risk status providing an indication of increased risk to the patient's health.

In effect, the redetermining allows the escalation of the risk status of the patient so that more senior medical staff can be contacted and shorter time frames may be provided for
10 attending to the patient.

Embodiments of the present invention may continue to monitor the patient's status and whether the patient has been attended to by the relevant health care personnel and may continue to transmit directions to health care personnel as appropriate. Thus, it is possible
15 that four, five or even more directions may issue and the patient's risk status may be increased with the issue of each direction to ensure that the patient receives the appropriate care.

Preferably, directions to health care personnel are transmitted to the health care personnel
20 by at least two contact devices. For example, the direction may be transmitted to a doctor's pager and, shortly thereafter, or simultaneously, be transmitted to the doctor's mobile phone. The direction may also be in the form of a recorded voice message directed to the doctor's office telephone number. If the patient is at the highest risk status, the communication module may transmit the direction to all contact devices associated with
25 the health care personnel at the same time.

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The present invention also provides a process executed by a computer system for facilitating the provision of health care to a patient, including the steps of:

receiving patient data relating to the health of said patient;

determining a risk status of said patient based on said patient data;

5   transmitting a first direction to a first health care provider to attend the patient, the first direction including the risk status of the patient;

determining whether the first health care provider confirms attendance at the patient; and

transmitting a second direction to a second health care provider to attend the patient

10   if attendance by the first health care provider was not confirmed.

The present invention also provides a patient care process executed by a computer system, including the steps of:

(i) determining a risk level representing a risk to a patient's health;

15   (ii) selecting one of a plurality of health care providers to attend the patient on the basis of the determined risk level;

(iii) requesting the selected health care provider to attend the patient; and

(iv) repeating at least steps (ii) to (iii) if the patient is not attended by the selected health care provider within a corresponding time period.

20

The present invention also provides a system for facilitating the provision of health care to one or more patients, including:

computerised means for logging patient data relating to health of said one or more patients;

25   an administration system in communication with said computerised means and configured to determine a risk status of each of said one or more patients based on the patient data, said administration system being further configured to, for each patient: transmit a first direction to a first health care provider to attend the patient, depending on the risk status of the patient; determine whether the first health care provider has confirmed

30   attendance at the patient within a first time period; and transmit a second direction to a second health care provider to attend the patient within a second time period if attendance by the first health care provider was not confirmed.

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Preferably, the administration system is further configured to determine whether the second health care provider has confirmed attendance at the patient within the second time period and to transmit a third direction to a third health care provider to attend the patient within a third time period if attendance by the second predetermined health care provider was not confirmed within the second time period.

Embodiments of the invention provide systems concerned with the health of the individual patient by providing the bedside nurse and front line doctors with a real time solution for any deterioration in a patient's clinical status. The systems communicate with caregivers by graded alerts that are configurable to any healthcare setting. The graded alerts assist in

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Referring now to Figure 2, the health care process 200 of the health care system 100 is described. The flow diagram shown in Figure 2 provides a summary or overview of the major steps of the health care process of the health care system. However, it should be understood that the complete health care process includes additional steps that are not

5   shown in Figure 2, but that are described below. More detailed flow diagrams of sub-processes that are each part of the complete health care process are shown in Figures 3 to 9, and are described in detail below. Returning to Figure 2, the health care process 200 can be considered to begin with admission of a patient to the hospital at step 205. Following admission, a patient record is created at step 210 by a nurse or an administration staff

10   member. If the patient has not previously been a client of the hospital, a patient profile providing pertinent personal and clinical data is created. Otherwise, if the patient is an existing client of the hospital, the nurse need only establish a new record for that patient to correspond with the patient's current health complaint. In order to establish the patient record and/or profile at step 210, the nurse may query the administration system 105 at

15   step 215.

The patient profile includes the following patient information:

(i)   Patient details (name, date of birth, treatment address, patient identification, ward, etc.) with appropriate privacy security. This information establishes a unique

20   patient record so that a patient's risk status can be monitored.

(ii)   Patient clinical data, including bedside observation parameters that form the basis of risk assessment, including blood pressure, heart rate, respiratory rate, level of consciousness, temperature, pain score, oxygen saturation, urine output, Not-For-Resuscitation (NFR)/Do-Not-Resuscitate (DNR) status, and may include other

25   parameters such as co-morbidity factors. The system 100 can be configured to store and process additional observation parameters if they are considered to play an important role in indicating the possibility of an adverse health event.

Data is entered by authorised medical staff including nurses, junior doctors, registrars and

30   consultants by entering a login identifier (e.g., staff number) and a corresponding password.

AMENDED SHEET
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Depending on the risk status level, a health care provider that does not positively reject or accept an intervention request at step 945 may be contacted again at step 940 after a configurable time period has elapsed (as indicated by the "Recommended Maximum Time Between Cycles" column in the Table below). This continues until either the health care
5 provider positively accepts or rejects the intervention request at step 950, or it is determined at step 975 that the corresponding response cycle limit (as indicated by the in the "Maximum Number of Communication Cycles" column in the Table below) has been reached, where the product of the cycle time period and the maximum number of cycles provides the acceptance time period for the corresponding risk status level. When a
10 response cycle limit is reached, the next higher risk level status is assigned to the patient at step 982, and hospital management is alerted at step 980. A new intervention/communications cycle begins with a higher alert status and consequent assignment of more senior personnel then commences at step 930 to expedite the provision of appropriate care to the patient.

15

In the event that the health care provider rejects the intervention request (as determined at step 950) within the prescribed cycle limits, the system 100 then sends an intervention request to the next most appropriate health care provider at steps 930 to 940. As the cycle limit has not been exceeded, the risk status level is not escalated.

20

Status Level	Intervention Response Times	Acceptance Time Period	Maximum Number of Communication Cycles	Recommended Maximum Time Between Cycles
Status level – 0	n/a	n/a	n/a	n/a
Status level – 1	3-8 hours	180 mins	4	45 mins
Status level - 2	1-3 hours	90 mins	3	30 mins
Status level - 3	10-60 mins	24 mins	3	8 mins
Status level - 4	0-10 mins	120 sec	2	60 secs
Status level - 5	0-2 mins	10 sec	1	10 secs

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A health care provider that accepts an intervention request will usually be required to attend the patient bedside (at step 960). The selected provider will have a defined bedside attendance/intervention response time standard to meet. For example, a provider that

5   accepts a risk status Level 5 intervention request may have to meet a standard of attending the patient's bedside attendance within 2 minutes. Having accepted an intervention request alert at step 950, the health care provider will receive a reminder to attend the patient bedside shortly before the intervention response time has expired.

10   In the case where the primary healthcare provider attends the patient's bedside he or she is required to enter a unique identifier into the bedside PDA/tablet to positively confirm bedside attendance. The health care provider can enter his/her own details to log attendance, or alternatively another attending health care provider, such as a nurse, can do it on his/her behalf. When this occurs, all existing intervention requests for that specific

15   patient are cancelled at step 967, and at step 969 an appropriate message is sent to any other health care providers who have been requested to attend the bedside. The attending health care provider administers treatment (at step 965), and the process of patient observation and risk assessment continues (at 300).

20   If the health care provider does not meet the attendance/intervention response time requirements at step 955, the communications module 120 treats the non-attendance as a positive rejection of the request for intervention. Hospital management is alerted at step 980, the risk status is incremented by one level (unless it is already at level 5) at step 982, and a higher level intervention activity is thereby requested and the communications

25   module 120 contacts the next most applicable health care resource at step 930, as described above.

If a patient's condition normalises after one or more health care providers have been requested to attend, any existing intervention requests are cancelled, and the responding

30   provider notified of the cancellation in the same manner as the initial request.

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Nurses within the ward in which an intervention request is activated receive an electronic full copy of the request and its status at step 940.

The human resource module 125 is a labour management tool. Available doctors for
5   intervention requests are identified by checking check boxes displayed adjacent to their names on a personnel display page generated by the system 100. The communications module 120 then uses this information to determine which health care providers are on call/ rostered and directs intervention requests to these resources.

10   The event logging and system analysis module 130 provides clinical and business metrics that assist in decision-making, process improvement and clinical governance. This module 130 analyses and evaluates the overall performance of doctors and nurses on an individual and event basis. For example, an adverse event (AE) can be analysed across almost any factors or potential contributory causes to provide forensic data and a deeper
15   understanding of why a patient may have had an AE and the contributing factors attached thereto. Where events have occurred that require reconstruction and detailed information, the event logging and system analysis module 130 can assist to determine what happened. This module 130 can also help identify personnel that require additional training for performance or skill deficiencies. The event logging and system analysis module 130
20   performs the following activities:
   (i)   Collation, analysis and interpretation of patient and medical staff data;
   (ii)   Statistical comparisons and risk profiling to detect aberrant processes, responses and procedures;
   (iii)   Benchmarking and reporting; and
25   (iv)   Forensic reconstruction of events, decisions and activities that occurred before, during and after an AE.

The module 130 also provides operational metrics that can be used to generate a business oriented report providing summary data for key performance measures such as average
30   stay per patient, bed utilisation, AE incidence, mortality rates, and key human resource ratios.

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CLAIMS:

1. A process executed by a computer system for facilitating the provision of health care to a patient, including the steps of:

5   receiving patient data relating to the health of a patient;

         processing said patient data to determine a risk status providing an indication of risk to the patient's health;

         selecting a health care provider to attend said patient on the basis of said risk status; and

10   transmitting directions to respective health care providers to attend the patient, wherein a direction is transmitted to a health care provider in response to non-receipt of a confirmation that a previously directed health care provider has attended the patient within a corresponding time period.

15   2. A process as claimed in claim 1, wherein said direction includes said risk status.

3. A process as claimed in claim 1, wherein said direction includes said risk status and at least part of said patient data.

20   4. A process as claimed in claim 1, wherein a direction is transmitted to a health care provider in response to non-receipt of an acceptance of a previously transmitted direction from a previously directed health care provider within a corresponding time period.

25   5. A process as claimed in claim 1, wherein a direction is transmitted to a health care provider in response to receipt of a rejection of a previously transmitted direction from a previously directed health care provider within a corresponding time period.

6. A process as claimed in claim 1, wherein the corresponding time period is determined
30   by the patient's risk status.

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7. A process as claimed in claim 1, including redetermining the risk status for the patient in response to non-receipt of a confirmation that a previously directed health care provider has attended the patient within a corresponding time period, the redetermined risk status providing an indication of increased risk to the patient's health.

5

8. A process as claimed in claim 7, wherein each transmitted direction includes an indication of the corresponding risk status for the patient.

9. A process as claimed in claim 1, wherein said patient data includes a plurality of health

10 parameters of said patient.

10. A process as claimed in claim 9, wherein said risk status is determined on the basis of said plurality of health parameters and a not-for-resuscitation (NFR) status of said patient.

15

11. A process as claimed in claim 9, wherein said risk status is determined on the basis of said plurality of health parameters and one or more co-morbidity factors.

12. A process as claimed in claim 9, wherein said plurality of health parameters includes at

20 least two of blood pressure, heart rate, respiration rate, oxygen saturation, consciousness level, urine output, temperature, level of consciousness, and pain score.

13. A process as claimed in claim 9, wherein said step of processing said patient data includes processing said plurality of health parameters to determine measures of risk,

25 and determining said risk status on the basis of said measures of risk.

14. A process as claimed in claim 13, wherein said measures of risk correspond to respective health systems of said patient.

30 15. A process as claimed in claim 14, wherein said health systems of said patient include neurological, respiratory, cardiovascular, urinary, and temperature health systems.

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16. A process as claimed in claim 13, wherein said risk status is selected from a plurality of predetermined risk status levels.

5   17. A process as claimed in claim 16, wherein said measures of risk are selected from a plurality of predetermined risk levels.

18. A process as claimed in claim 17, wherein said determining includes:

if one or more of said measures of risk is equal to the highest of said plurality of
10   predetermined risk levels, then selecting said risk status as the highest of said plurality of predetermined risk status levels ; and

otherwise, if two or more of said measures of risk are greater than the lowest of said plurality of predetermined risk levels, then selecting said risk status as the highest of said two or more measures of risk, and incrementing said risk status
15   by one level unless said risk status is equal to the highest of said plurality of predetermined risk levels.

19. A process as claimed in claim 13, wherein said risk status is determined on the basis of first rules applied to said measures of risk.

20

20. A process as claimed in claim 19, wherein the measures of risk are determined on the basis of second rules applied to at least some of said health parameters.

21. A process as claimed in claim 19, wherein said first rules and said second rules are
25   configurable by a user.

22. A process as claimed in claim 18, wherein said determining further includes incrementing said risk status by one level if a selected health care provider has not responded to said direction.

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23. A process as claimed in claim 22, wherein said determining further includes limiting the level of said risk status to less than the highest of said plurality of predetermined risk levels unless the patient is experiencing a life-threatening event.

5   24. A process as claimed in claim 22, wherein said determining further includes limiting the level of said risk status to less than the highest of said plurality of predetermined risk levels if the patient is subject to a not-for-resuscitation order, even if the patient is experiencing a life-threatening event.

10   25. A process as claimed in claim 1, wherein the direction is transmitted to one or more wireless devices of said health care provider.

26. A process as claimed in claim 1, wherein the direction is transmitted to a first device associated with said health care provider, and the process includes transmitting said
15   direction to a second device associated with said health care provider if said health care provider does not reply to said direction.

27. A process as claimed in claim 1, wherein the direction is transmitted to at least two devices associated with said health care provider at the same time if said risk status is
20   indicative of a significant health risk to said patient.

28. A process as claimed in claim 25, wherein said one or more wireless devices includes one or more of a telephone, a personal data assistant, and a portable computing device.

25   29. A process as claimed in claim 1, including receiving availability data indicating the availability of at least one health care provider, wherein a health care provider is selected only if said health care provider is available to attend said patient.

30. A process as claimed in claim 1, wherein said step of selecting includes selecting a
30   type of health care provider on the basis of said risk status.

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31. A process as claimed in claim 30, wherein the type of health care provider includes one of a nurse, a doctor, a registrar, a consultant, and a cardiac arrest response team.

32. A process as claimed in claim 31, wherein said step of selecting includes selecting a health care provider of the selected type on the basis of availability data indicating the availability of the health care provider to attend said patient.

33. A process as claimed in claim 1, wherein the direction transmitted to said health care provider includes an intervention activity associated with said risk status.

34. A process executed by a computer system for facilitating the provision of health care to a patient, including the steps of:

receiving patient data relating to the health of said patient;

determining a risk status of said patient based on said patient data;

transmitting a first direction to a first health care provider to attend the patient, the first direction including the risk status of the patient;

determining whether the first health care provider confirms attendance at the patient; and

transmitting a second direction to a second health care provider to attend the patient if attendance by the first health care provider was not confirmed.

35. A process as claimed in claim 34, wherein the second direction includes an increased risk status of the patient.

36. A process as claimed in claim 35, wherein the first direction includes a first time period for attending the patient, and the second direction includes a second time period for attending the patient.

37. A process as claimed in claim 36, wherein the first time period is associated with the determined risk status, and the second time is associated with the increased risk status.

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38. A process as claimed in claim 36, wherein the second time period is equal to or less than the first time period.

39. A process as claimed in claim 36, wherein the process further includes the steps of:

5   determining whether the health care provider confirms attendance at the patient within the second period; and

transmitting a third direction to a third health care provider to attend the patient if attendance by the second health care provider was not confirmed within the second time period.

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40. A process as claimed in claim 39, wherein the third direction includes a further increased risk status of the patient.

41. A process as claimed in claim 39, wherein the third direction includes a third time

15   period for attending the patient, the third time period being less than the second time period.

42. A process as claimed in claim 34, including:

(i) determining whether the most recently directed health care provider confirms

20   attendance at the patient within a corresponding time period;

(ii) re-determining the risk status of the patient, the redetermined risk status providing an indication of increased risk to the patient's health due to non-attendance of a health care provider at the patient;

(iii) selecting a further one of a plurality of health care providers on the basis of the

25   redetermined risk status;

(iv) transmitting a direction to the selected health care provider to attend the patient; and

(v) repeating steps (i) to (iv) until attendance by a health care provider at the patient is confirmed.

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43. A patient care process executed by a computer system, including the steps of:

    (i) determining a risk level representing a risk to a patient's health;

    (ii) selecting one of a plurality of health care providers to attend the patient on the basis of the determined risk level;

5   (iii) requesting the selected health care provider to attend the patient; and

    (iv) repeating at least steps (ii) to (iii) if the patient is not attended by the selected health care provider within a corresponding time period.

44. A patient care process as claimed in claim 43, wherein the step of repeating includes

10   repeating at least steps (i) to (iii) if the patient is not attended by the selected health care provider within a corresponding time period.

45. A health care system having components for executing the steps of any one of claims 1 to 44.

15

46. A computer readable storage medium having stored thereon program instructions for executing the steps of any one of claims 1 to 44.

47. A system for facilitating the provision of health care to one or more patients, including:

20   computerised means for logging patient data relating to health of said one or more patients;

    an administration system in communication with said computerised means and configured to determine a risk status of each of said one or more patients based on the patient data, said administration system being further configured to, for each patient:

25   transmit a first direction to a first health care provider to attend the patient, depending on the risk status of the patient; determine whether the first health care provider has confirmed attendance at the patient within a first time period; and transmit a second direction to a second health care provider to attend the patient within a second time period if attendance by the first health care provider was not confirmed.

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48. A system as claimed in claim 47, wherein the second time period is equal to or less than the first time period.

49. A system as claimed in claim 47, wherein the first and second directions are effected
5   by automatic transmission of a message to portable electronic devices associated with the respective first or second health care providers.

50. A system as claimed in claim 49, wherein the first and second directions are transmitted as wireless communications.

10

51. A system as claimed in claim 47, wherein the patient data includes data relating to a plurality of health parameters.

52. A system as claimed in claim 47, wherein the first direction is only transmitted when
15   the risk status is equal to or above a threshold level.

53. A system as claimed in claim 47, wherein the first and second directions include information concerning the risk status of the patient.

20   54. A system as claimed in claim 47, wherein the first and second directions include a request to confirm that the relevant health care provider intends to comply with the direction.

55. A system as claimed in claim 47, wherein the administration system increases the risk
25   status of the patient if it determines that the first health care provider has not confirmed attendance at the patient within the first time period.

56. A system as claimed in claim 47, wherein the administration system is further configured to determine whether the second health care provider has confirmed
30   attendance at the patient within the second time period and to transmit a third direction to a third health care provider to attend the patient within a third time period if attendance by the second health care provider was not confirmed within the second time period.

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57. A system as claimed in claim 56, wherein the third time period is equal to or less than the second time period.

58. A system as claimed in claim 47, wherein the computerised means include a plurality of computerised devices networked with, but located remotely from, the administration system.

59. A system as claimed in claim 47, wherein each computerised communication device is located nearby the one or more patients.

60. A system as claimed in claim 47, wherein the computerised device is a wireless handheld device.

61. A system as claimed in claim 47, wherein the computerised device includes a personal computer with appropriate input means for logging the patient data.

62. A system as claimed in claim 47, wherein the administration system includes a centralised server having a risk assessment module for determining the risk status and a communications module for transmitting directions to health care providers.

63. A system as claimed in claim 47, wherein directions to the health care provider are transmitted to at least two contact devices of the health care provider.

64. A system as claimed in claim 63, wherein a direction to the health care provider is transmitted to at least two contact devices of the health care provider at the same time.

65. A system as claimed in claim 47, wherein the direction is in the form of a recorded voice message directed to a telephone number associated with the health care provider.

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66. A system as claimed in claim 47, wherein the administration system is configured to transmit directions to respective health care providers to attend the patient, wherein a direction is transmitted to a health care provider in response to non-receipt of a confirmation that a previously directed health care provider has attended the patient

5   within a corresponding time period.

67. A system as claimed in claim 66, wherein the administration system is further configured to re-determine the risk status of the patient in response to non-receipt of said confirmation, the redetermined risk status providing an indication of increased risk

10   to the patient's health due to non-attendance of a health care provider at the patient.

68. A system as claimed in claim 67, wherein the administration system is further configured to select a further one of the health care providers on the basis of the redetermined risk status, and to transmit a directions to the selected health care

15   provider to attend the patient.